	Application No.	**Applicant(s)**
Notice of Allowability	09/828,381	CHEN ET AL.
	Examiner	**Art Unit**	
	VAN H. NGUYEN	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed 10/22/2009 and the telephonic interview on 11/16/2009*.

2. ☒ The allowed claim(s) is/are *12, 23, 24, and 40 (renumbered as claims 1-4)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

      a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

           1. ☐ Certified copies of the priority documents have been received.

           2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

           3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the
              International Bureau (PCT Rule 17.2(a)).

      * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF
    INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
        Paper No./Mail Date _____ .

    **Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of
    each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the
    attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08),
    Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit
    of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413),
    Paper No./Mail Date *20091116* .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

1.   This communication is responsive to the amendment filed 10/22/2009 and the telephonic

interview on 11/16/2009.

Claims 12, 23, 24, and 40 have been examined and allowed.

2.   **EXAMINER'S AMENDMENT:**

An examiner's amendment to the record appears below. Should the changes
and/or additions be unacceptable to applicant, an amendment may be filed as
provided by 37 CFR 1.312. To ensure consideration of such an amendment, it
MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Ms. Laura C. Brutman (Registration No. 38,395) on 11/16/2009.

The application has been amended as follows:

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Claims 1-11 (Canceled)

Claim 12 (Currently Amended): ~~An object-oriented virtual machine interface for a~~ ~~reconfigurable wireless network communication apparatus,~~ A computer system comprising:

at least one processor;

a computer readable storage medium;

an object-oriented virtual machine interface for a reconfigurable wireless network communication apparatus;

said reconfigurable wireless network communication apparatus comprising:

a plurality of hardware kernels;

said object-oriented virtual machine interface comprising a plurality of software objects including a first subset of said software objects, each software object in said first subset of said software objects associated with a different hardware kernel in said plurality of hardware kernels so that a change to a software object in said first subset of said software objects results in a change in said hardware kernel associated with said software object;

said plurality of software objects comprising a searcher object, a code generation unit object, a finger object, a matched filter object, a combiner object, an uplink object and a downlink object; and

said plurality of hardware kernels comprising a searcher kernel, a code generation unit kernel, a finger kernel, a matched filter kernel, a combiner kernel, an uplink kernel and a downlink kernel; wherein:

said searcher object is associated with said searcher kernel;

said code generation unit object is associated with said code generation unit kernel;

said finger object is associated with said finger kernel;

said matched filter object is associated with said matched filter kernel;

said combiner object is associated with said combiner kernel;

said uplink object is associated with said uplink kernel; and

said downlink object is associated with said downlink kernel.

Claim 13-22 (Cancelled)

Claim 23 (Currently Amended): An object-oriented reconfigurable system including at least one processor and comprising an object- oriented virtual machine interface, a virtual machine, and a reconfigurable apparatus,

said reconfigurable apparatus coupled to said virtual machine and comprising a plurality of hardware kernels;

said object-oriented virtual machine interface coupled to said virtual machine and comprising a plurality of software objects including a first subset of said software objects, each software object in said first subset of said software objects associated with a different hardware kernel in said plurality of hardware kernels such that a change to a software object in said first subset of said software objects results in a change in said hardware kernel associated with said software object;

said plurality of software objects in said first subset of said software objects comprising a searcher object, a code generation unit object, a finger object, a matched filter object, a combiner object, an uplink object and a downlink object; and

said plurality of hardware kernels comprising a searcher kernel, a code generation unit kernel, a finger kernel, a matched filter kernel, a combiner kernel, an uplink kernel and a downlink kernel; wherein:

said searcher object is associated with said searcher kernel;

said code generation unit object is associated with said code generation unit kernel;

said finger object is associated with said finger kernel;

said matched filter object is associated with said matched filter kernel;

said combiner object is associated with said combiner kernel;

said uplink object is associated with said uplink kernel; and

said downlink object is associated with said downlink kernel.

Claim 24 (Currently Amended): An object-oriented reconfigurable system including at least one processor and comprising an object-oriented virtual machine interface, a virtual machine and a reconfigurable apparatus,

said reconfigurable apparatus coupled to said virtual machine and comprising a plurality of hardware kernels; and

said object-oriented virtual machine interface coupled to said virtual machine and comprising a plurality of software objects including a first subset of said software objects,

each software object in said first subset of said software objects associated with a

different hardware kernel in said plurality of hardware kernels such that a change to a

software object in said first subset of said software objects results in a change in said

hardware kernel associated with said software object, wherein said plurality of hardware

kernels comprise a searcher kernel, a code generation unit kernel, a finger kernel, an

uplink kernel and a downlink kernel.

Claim 25-39 (Cancelled)

Claim 40 (Previously Presented): A computer program product for a reconfigurable

apparatus comprising a plurality of kernels and an interconnect structure for

interconnecting said plurality of kernels, the computer program product comprising a

computer readable storage medium and a computer program mechanism embedded

therein, the computer program mechanism comprising:

    instructions for instantiating a plurality of software objects, each software object

in said plurality of software objects corresponding to a different kernel in said plurality of

kernels such that a change to said software object results in a change in a state of said

corresponding different kernel;

    instructions for assigning an attribute value to a first software object in said

plurality of objects according to a communication protocol; and

    issuing machine-readable instructions to configure the kernel associated with said

first software object in accordance with said attribute value,

wherein said plurality of software objects comprise a searcher object, a code

generation unit object, a finger object, an uplink object, and a downlink object, and

wherein said plurality of kernels comprise a searcher kernel, a code generation

unit kernel, a finger kernel, an uplink kernel and a downlink kernel respectively

corresponding to said searcher object, said code generation unit object, said finger object,

said uplink object and said downlink object, respectively.

Claim 41-74 (Cancelled)

Contact Information

3.   Any inquiry or a general nature or relating to the status of this application should

be directed to the TC 2100 Group receptionist: (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to VAN H. NGUYEN whose telephone number is (571)

272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM-

6:00PM. The examiner can also be reached on alternative Friday. If attempts to reach the

examiner by telephone are unsuccessful, the examiner's supervisor, HYUNG S. SOUGH

can be reached at (571) 272-6799.

The fax phone number for the organization where this application or proceeding is

assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/
Primary Examiner, Art Unit 2194